What we claim is:

1. An optical transmission system comprising:

a drop portion for dropping an optical signal;

a monitor for monitoring a spectrum of the dropped optical signal within a modulation band per channel;

a controller for detecting non-flatness of a pass characteristic of a transmission line from the spectrum; and

a compensator for compensating the non-flatness for the optical signal.

2. The optical transmission system as claimed in claim 1 wherein the compensator is provided on a reception side or a transmission side of the optical signal.

3. The optical transmission system as claimed in claim 1 wherein the monitor comprises an optical spectrum analyzer, and the controller detects the non-flatness by determining a linear gradient of a spectrum around a peak wavelength, determined by sweeping the optical spectrum analyzer.

4. The optical transmission system as claimed in claim 1 wherein the monitor is composed of a coupler for further dropping the optical signal from the drop portion, two tunable filters for sweeping the optical signal from the coupler and for respectively extracting an optical signal component a fixed wavelength width apart around a peak wavelength, and two photo diodes for detecting power of an output optical signal of the tunable filters to be provided to the controller.

5. The optical transmission system as claimed in claim 4, further comprising a modulator, on a transmission side, for applying to the optical signal an intensity modulation of a predetermined frequency for monitoring,

the filters being set to extract an optical signal component the fixed wavelength width corresponding to the predetermined frequency

apart from the peak wavelength.

6. The optical transmission system as claimed in claim 1, further comprising a modulator, on a transmission side, for applying to the optical signal an intensity modulation of a predetermined frequency for monitoring,

a laser diode connected to the drop portion to perform a heterodyne detection,

the monitor being composed of a photo diode for inputting an optical signal, from the drop portion, of a wavelength detected by a heterodyne detection, and an electric spectrum analyzer for determining powers of at least two electric signals a fixed frequency width apart around a peak frequency determined by sweeping an electric signal outputted from the photo diode, to be provided to the controller.

7. The optical transmission system as claimed in claim 1, further comprising a modulator, on a transmission side, for applying to the optical signal an intensity modulation of a predetermined frequency for monitoring,

a laser diode connected to the drop portion to perform a heterodyne detection,

the monitor being composed of a photo diode for inputting an optical signal, from the drop portion, of a wavelength detected by a heterodyne detection, two electric filters for respectively extracting an electric signal component a fixed frequency width apart around a peak frequency determined by sweeping an electric signal outputted from the photo diode, and two wattmeters for determining powers of output signals from the electric filters to be provided to the controller.

8. The optical transmission system as claimed in claim 4 wherein the monitor includes a comparator for detecting an output level difference between the photo diodes, and the controller controls the compensator so that an output level of the comparator assumes zero.

9. The optical transmission system as claimed in claim 2 wherein the reception side comprises an arbitrary intermediate node.

10. The optical transmission system as claimed in claim 1 wherein the compensator comprises a variable pass characteristic compensator.

11. The optical transmission system as claimed in claim 2 wherein the compensator comprises a variable pass characteristic compensator.